

GERALD SCHOENFELD
Chairman of the Board

October 31, 2008

By Electronic Filing

Chairman Kevin J. Martin
Commissioner Jonathan S. Adelstein
Commissioner Michael J. Copps
Commissioner Robert M. McDowell
Commissioner Deborah Taylor Tate

Federal Communication Commission
445 12th Street, SW
Washington, DC 20554

Re: **Ex Parte Comments of the Broadway League, ET Docket No. 04-186
Introduction of Unlicensed Devices in the "White Spaces"**

Dear Chairman Martin, Commissioners Adelstein, Copps, McDowell and Tate:

This letter supplements my previous letters filed on October 22, and October 24, 2008 with respect to the FCC Laboratory Division's evaluation of White Space devices dated October 15, 2008 and the FCC's notice of a vote on an order opening the white space spectrum to devices using geolocation, spectrum sensing or any other devices, scheduled for November 4, 2008.

This letter does not in any way modify any of the statements contained in the October 22 and 24, 2008 filings. In the event that any regulations are to be promulgated authorizing any use of any geolocation, spectrum sensing or any other device(s) which may be developed now or in the future, I urge that prior to your authorization to use such devices, we be permitted participation in any testings of such devices. In addition, upon due notice, a public hearing be held so that all interested parties may be heard prior to any authorization of any devices. By proceeding in this manner, we will have the assurance that due process has been afforded and that complete, proper, real time applicable function of the devices have been proven prior to their use.

The FCC's enhanced certification process, the process for later scrutiny of geolocation, spectrum sensing or any other devices, must be an open, meaningful process with certain elements defined in the order including:

- The process must be a Commission-level process -- not one that can be handled from beginning to end by the Office of Engineering and Technology;
- The process must include comprehensive and rigorous test parameters and protocols that the public should be able to comment on in advance of the testing;
- Test parameters must include all of the IEEE Dynamic Frequency Selection parameters, not just a sensing level.
- Testing must include laboratory and field testing in real world situations.
- Field testing must include a Broadway theatre test and a wide range of other venues using wireless microphones, including, but not limited to, sports and entertainment venues, churches, broadcasting studios, arenas, touring Broadway show theatres, and other venues.
- The results and conclusions should be open to public comment and review.

- The terms and conditions of database creation and registration should be made a part of the rules, not left to the discretion of a database administrator.
- Wireless microphone use must have priority over white space device use. As protected incumbent users, we consider this our right.
- It has been suggested that wireless microphones not used in broadcasting should be on the same footing as white space devices. We strongly recommend against this as the situation would be ripe for interference because it would put the incumbent users, Broadway wireless microphones, on the same footing as white spaces devices, which do not yet exist. Non-existent white space devices are certainly not incumbent users and should not be considered in the same manner.
- The Commission's order should designate adequate protected channels in every market, useful for smaller and itinerant incumbent users, that will not or cannot be protected by a database.
- Any use of the term grandfather must be clearly defined so that incumbent users, such as the Broadway Theatre, would not be relegated to an insufficient number of channels which would entirely alter the Broadway Theatre as we now know it. Without a major technology breakthrough, availability in all thirty-seven (37) channels is even now a minimum. At present, Channel 14 begins the UHF TV Broadcast frequency range beginning at 470 MHz. There are 38 channels with six (6) center frequencies in each channel (470-476) These 38 channels are between Channel 14 (470MHz) and Channel 52 (698MHz) Channel 37 (608-614) is not available which leaves 37 available channels.

For example, the musical THE LION KING is located in the same building as MTV which makes wireless microphone arrangements the most difficult for one of the largest Broadway shows. **THE LION KING alone uses:**

- **part of 30 channels including**
- 46 wireless microphones-
- 24 wireless communications devices for stage hands, Production Stage Managers, etc.
- 16 Motorola Walkie-Talkies licensed just below Channel 13 in the 460MHz range.

The following are notes regarding a portion of the October 28th conference call I had with Chairman Martin.

Chairman Martin's Statement:

- All channels below 20 will be limited to "fixed-location" users (i.e., theatres & arenas).

Issues:

- The MAJORITY of Broadway use is above Channel 21 so theatres may require major investment into equipment operating below 21.
- Many channels below 20 are already restricted to Public Safety and DTV across America and are therefore useless. In New York City:
 - Only 3 channels will be available from 14 through 20;
 - Few wireless devices use 5 through 13 (high VHF);
 - There is NO white-space equipment using channels 2, 3 or 4 (due to design limitations).
- Broadway needs more than the 3 protected channels we've been promised above channel 21, in addition to protections based on geolocation and spectrum sensing.

Continued...

Chairman Martin's Statement:

- All existing users can register in a geolocation database:

Issues:

- Once approved, spectrum sensing will, in some cases, be the exclusive means of protection for wireless microphones.
- Urban environments are too unpredictable for spectrum sensing to function alone; spectrum sensing technology is nowhere near the required standard. Devices must ALWAYS be governed by the geolocation database, even with spectrum sensing.
- Broadway must have registration priority over white space devices on ALL channels.
- Specifics on database access must be in the ORDER and not left to the discretion of a database administrator.
- No indication of when "registered frequencies" expire, establishing priority in the registration scheme, or any details of the database.

Chairman Martin's Statement:

- Spectrum sensing devices will not be approved until demonstrated effective.

Issues:

- The FCC has already put the cart before the horse by adopting rules on this technology.
- Future processes relating to spectrum sensing must be stringent, open and require public comment and a commission vote. The FCC's engineers cannot decide this issue based upon existing test results because the data does not support guidelines for developing successful technology. A certification process is not the appropriate venue for technological development and a wholly new proceeding must be commenced.
- When licensing spectrum sensing, the order should specify:
 - Advance notice and public comment;
 - A Commission-level process, not managed by FCC Engineers (OET);
 - Comprehensive and rigorous test protocols and public comment at all stages, including test results and conclusions;
 - All parameters for successful spectrum sensing, not just a sensitivity threshold.

Once again, I urge that a vote on an order opening the white space spectrum be postponed from November 4, 2008 to a future date, upon proper notice, so that a full public hearing can be held.


Respectfully submitted,

GERALD SCHOENFELD
Chairman
The Shubert Organization